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Alleviation of intestinal lesions by combined treatment with a 5-fluoro-2′-deoxyuridine (FUDR) derivative and α-difluoromethylornithine (DMFO) in tumor-bearing mice. Vol. 43 (1992) 1311–1317. *Shuji Takeshita, Hikaru Nagatomi and Kazuko Ando*

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Xin Wang, Feng Shen, James H. Freisheim, Larry E. Gentry and Manohar Ratnam	1898	Differential stereospecificities and affinities of folate receptor isoforms for folate compounds and antifolates
Additions and Corrections	1903	Heparin: does it act as an antioxidant *in vivo*? Vol. 44 (1992) 188–191. *Domenico Lapenna, Andrea Mezzetti, Sergio de Gioia, Giuliano Ciofani, Leonardo Marzio, Carmine Di Ilio and Franco Cuccurullo*

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ALTON MEISTER — 1905 On the antioxidant effects of ascorbic acid and glutathione

Rapid Communications

MARK A. METCALF, ROBERT W. MCGUFFIN and MARK W. HAMBLIN — 1917 Conversion of the human 5-$HT_{1D\beta}$ serotonin receptor to the rat 5-HT_{1B} ligand-binding phenotype by Thr^{355} Asn site directed mutagenesis

JEAN-PIERRE SOMMADOSSI, RAYMOND F. SCHINAZI, CHUNG K. CHU and MENG-YU XIE — 1921 Comparison of cytotoxicity of the (−)- and (+)-enantiomer of 2′,3′-dideoxy-3′-thiacytidine in normal human bone marrow progenitor cells

Research Papers

J. C. MAURIZIS, M. OLLIER, C. NICOLAS, J. C. MADELMONT, H. GARRIGUE and A. VEYRE — 1927 *In vitro* binding of oxime acetylcholinesterase reactivators to proteoglycans synthesized by cultured chondrocytes and fibroblasts

FARIDA Y. GHAURI, CATHERINE A. BLACKLEDGE, ROBERT C. GLEN, BRIAN C. SWEATMAN, JOHN C. LINDON, CHRISTOPHER R. BEDDELL, IAN D. WILSON and JEREMY K. NICHOLSON — 1935 Quantitative structure–metabolism relationships for substituted benzoic acids in the rat. Computational chemistry, NMR spectroscopy and pattern recognition studies

SHIGERU MURAKAMI, IWAO ARAI, MAKOTO MURAMATSU, SUSUMU OTOMO, KIMIYE BABA, TADASHI KIDO and MITSUGI KOZAWA — 1947 Effect of stilbene derivatives on gastric H^+, K^+-ATPase

JAMES D. CLELLAND, ROSAMUND E. ALLEN and PAUL J. THORNALLEY — 1953 Inhibition of growth of human leukaemia 60 cells by *S*-2-hydroxyacylglutathiones and monoethyl ester derivatives

AKIKO KURAMOCHI-MOTEGI, HIROSHI KURAMOCHI, FUMIKO KOBAYASHI, HISAO EKIMOTO, KATSUTOSHI TAKAHASHI, SHIGETOSHI KADOTA, YASUSHI TAKAMORI and TOHRU KIKUCHI — 1961 Woodfruticosin (woodfordin C), a new inhibitor of DNA topoisomerase II. Experimental antitumor activity

M.-P. MINGEOT-LECLERCQ, P. M. TULKENS and R. BRASSEUR — 1967 Accessibility of aminoglycosides, isolated and in interaction with phosphatidylinositol, to water. A conformational analysis using the concept of molecular hydrophobicity potential

JEANINE A. G. VAN DE WIEL, MARLY MEUWISSEN, HEIMEN KOOY, PETER H. S. FIJNEMAN, JAN NOORDHOEK and ROB P. BOS — 1977 Influence of long-term ethanol treatment on *in vitro* biotransformation of benzo(*a*)pyrene in microsomes of the liver, lung and small intestine from male and female rats

CLAUDIO NASTRUZZI, ENEA MENEGATTI, COSTANZA PASTESINI, RITA CORTESI, ELISABETTA ESPOSITO, MARCELLO SPANO, ROBERTO BIAGINI, EUGENIA CORDELLI, GIORDANA FERIOTTO and ROBERTO GAMBARI — 1985 DNA binding activity and inhibition of DNA–protein interactions. Differential effects of tetra-*p*-amidinophenoxyneopentane and its 2′-bromo derivative

GEORGE E. N. KASS, MARLENE J. JUEDES and STEN ORRENIUS — 1995 Cyclosporin A protects hepatocytes against prooxidant-induced cell killing. A study on the role of mitochondrial Ca^{2+} cycling in cytotoxicity

THOMAS GEBEL and EDMUND MASER — 2005 Characterization of carbonyl reducing activity in continuous cell lines of human and rodent origin

KARIN W. FRØLICH, GRETHE M. AARBAKKE and HOLM HOLMSEN — 2013 Chlorpromazine increases the turnover of metabolically active phosphoinositides and elevates the steady-state level of phosphatidylinositol-4-phosphate in human platelets

S. K. GHOSH and M. K. PODDAR 2021 Effect of δ-9-tetrahydrocannabinol and theophylline on hepatic microsomal drug metabolizing enzymes

WEI-XI A. GUO, LAWRENCE L. POULSEN and DANIEL M. ZIEGLER 2029 Use of thiocarbamides as selective substrate probes for isoforms of flavin-containing monooxygenases

ANIL S. SIPAHIMALANI, JOHN L. WERTH, ROBERT H. MICHELSON, ALOKE K. DUTTA, S. MBUA N. EFANGE and STANLEY A. THAYER 2039 Lipophilic amino alcohols with calcium channel blocking activity

RAJESH AGARWAL, HAIDER RAZA, DAVID L. ALLYN, DAVID R. BICKERS and HASAN MUKHTAR 2047 Glutathione *S*-transferase-dependent conjugation of leukotriene A_4-methyl ester to leukotriene C_4-methyl ester in mammalian skin

JAMES D. WINKLER, CHIU-MEI SUNG, WALTER C. HUBBARD and FLOYD H. CHILTON 2055 Evidence for different mechanisms involved in the formation of lyso platelet-activating factor and the calcium-dependent release of arachidonic acid from human neutrophils

ALEŠ MERTA, IVAN VOTRUBA, JINDŘICH JINDŘICH, ANTONÍN HOLÝ, TOMÁŠ CIHLÁŘ, IVAN ROSENBERG, MIROSLAV OTMAR and TCHAOU Y. HERVE 2067 Phosphorylation of 9-(2-phosphonomethoxyethyl)adenine and 9-(*S*)-(3-hydroxy-2-phosphonomethoxypropyl)adenine by AMP(dAMP) kinase from L1210 cells

Short Communications

RU FENG WU, SHIGETOSHI MIURA and YOSHIYUKI ICHIKAWA 2079 Neurotoxins: 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine, 1,2,3,4-tetrahydroisoquinoline and 1-methyl-6,7-dihydroxy-tetrahydroisoquinoline as substrates for FAD-containing monooxygenase of porcine liver microsomes

E. CHANUT, R. ZINI, J. H. TROUVIN, P. RIANT, J. P. TILLEMENT and C. JACQUOT 2082 Albumin binding and brain uptake of 6-fluoro-DL-tryptophan: competition with L-tryptophan

IAN S. WATTS, DAVID G. WHITE, JILL COATES, RICHARD ANDERSON and PETER STRONG 2086 Fasting in the rat does not induce hyperfibrinogenaemia

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DENNIS A. SMITH and BARRY C. JONES 2089 Speculations on the substrate structure–activity relationship (SSAR) of cytochrome P450 enzymes

Rapid Communication

RAMA S. DWIVEDI, ANDREA GRUEBELE and RAYMOND F. NOVAK 2099 Effects of altered calcium homeostasis on the expression of glutathione *S*-transferase isozymes in primary cultured rat hepatocytes

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PHILIP D. MARLEY and KERRIE A. THOMSON 2105 Regulation of cyclic AMP metabolism in bovine adrenal medullary cells

J. MICHAEL EDWARDSON and PHILIP M. DEAN 2111 Inhibition of alloxan-induced hyperglycaemia by compounds of similar molecular structure

HANS-GEORG EICHLER, KEITH A. MENEAR, KAREN E. DUNNET, JOHN G. HASTEWELL and PETER W. TAYLOR 2117 Studies on the uptake of low molecular weight monomeric tris-galactosyl conjugates by the rat liver

E. L. STEELS, K. WATSON and P. G. PARSONS 2123 Relationships between thermotolerance, oxidative stress responses and induction of stress proteins in human tumour cell lines

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RYOZO ISHIDA, KAZUYOSHI SUZUKI, YASUHIRO MASUBUCHI, SHIZUO NARIMATSU, SHOICHI FUJITA and TOKUJI SUZUKI — 2281 — Enzymatic basis for the non-linearity of hepatic elimination of propranolol in the isolated perfused rat liver

GILLIAN M. ANLEZARK, ROGER G. MELTON, ROGER F. SHERWOOD, BRIAN COLES, FRANK FRIEDLOS and RICHARD J. KNOX — 2289 — The bioactivation of 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB1954)—I. Purification and properties of a nitroreductase enzyme from *Escherichia coli*—a potential enzyme for antibody-directed enzyme prodrug therapy (ADEPT)

RICHARD J. KNOX, FRANK FRIEDLOS, ROGER F. SHERWOOD, ROGER G. MELTON and GILLIAN M. ANLEZARK — 2297 — The bioactivation of 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB1954)—II. A comparison of an *Escherichia coli* nitroreductase and Walker DT diaphorase

BRENDAN J. CONNOLLY, P. BARNABY WILLITS, BRIAN H. WARRINGTON and KENNETH J. MURRAY — 2303 — 8-(4-Chlorophenyl)thio-cyclic AMP is a potent inhibitor of the cyclic GMP-specific phosphodiesterase (PDE V_A)

MUNIR PIRMOHAMED, NEIL R. KITTERINGHAM, ALASDAIR M. BRECKENRIDGE and B. KEVIN PARK — 2307 — The effect of enzyme induction on the cytochrome P450-mediated bioactivation of carbamazepine by mouse liver microsomes

MANABU NEGISHI and SEIJI ITO — 2315 — Prostaglandin E_2-induced arachidonic acid release and catecholamine secretion from cultured bovine adrenal chromaffin cells

HERMAN STEEN, MARJOLIJN MEREMA and DIRK K. F. MEIJER — 2323 — A multispecific uptake system for taurocholate, cardiac glycosides and cationic drugs in the liver

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